Behrang Mehrparvar, Ph.D.

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AI Researcher · Cognitive Scientist · Philosopher of Mind
Netherlands | LinkedIn | Website | Medium | Synaptosearch |

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Research Profile

Interdisciplinary researcher with expertise in generative AI, computational cognitive science, and philosophy of mind. I explore how representation, associative memory, and interbrain synchrony contribute to intelligence—human, artificial, and collective. My work combines deep learning, cognitive modeling, and conceptual analysis to push beyond current paradigms in AI and consciousness studies.

Research Interests

- Generative models, interpretability, knowledge representation
- Associative memory & Hebbian learning in AI
- Interbrain synchrony & neurofeedback systems
- Philosophy of mind: synchronicity, consciousness, mental continuity
- Human–AI co-creativity & hybrid systems

Education

- M.Sc. (expected 2025), Brain & Cognitive Sciences University of Amsterdam
- **Ph.D., Computer Science** University of Houston (2017), GPA: 3.8/4.0
- M.Sc., Computer Engineering (Software) Iran University of Science & Technology (2011)

Academic Positions

Vrije Universiteit Amsterdam — Researcher (2024–Present)

- Studying interbrain synchrony during collaborative decision-making.
- Publishing theoretical work on mental continuity beyond predictive processing.

Institute for Logic, Language and Computation (ILLC), University of Amsterdam — Researcher (2024)

• Developed methods to **detect & translate ambiguity** in multilingual LLMs (ACL 2024).

University of Amsterdam — Researcher (2023–Present)

• Projects on medical decision-making with deep brain stimulation, episodic memory & information search.

Pattern Analysis Laboratory, University of Houston — Researcher (2012–2017)

Researched conceptual domain adaptation and deep network community analysis.

Performance & Dependability Engineering Lab — Researcher (2009–2011)

• Designed a model checker for SDES descriptions.

Teaching Experience

- Teaching Assistant, University of Houston (2011–2016): Machine Learning, AI, Data Structures.
- Instructor, Daneshsar Institute, Tehran (2010): Multimedia Systems, Advanced English.

Selected Publications

- Mehrparvar, B. Consciousness: war, and peace! PsyArXiv Preprints, 2025.
- Mehrparvar, B. Beyond Predictive Processing: Explaining Mental Continuity Through a Potentia Monistic Framework. Int. Conf. Philosophy of Mind, 2025.
- Mehrparvar, B. & Pezzelle, S. Detecting and Translating Language Ambiguity with Multilingual LLMs. ACL Workshop, 2024.
- Mehrparvar, B. & Vilalta, R. Conceptual Domain Adaptation Using Deep Learning. arXiv, 2018.
- Mehrparvar, B. & Abdollahi Azgomi, M. Towards a Multi-Formalism Model Checker Based on SDES Description. FCS Proceedings, 2011.

Grants, Fellowships & Initiatives

- **Founder, Synaptosearch (2024–present)** Independent research initiative on global AI–language, associative memory AI, adaptive scaffolding.
- Independent studies in philosophy of mind and synchronicity, published via Medium.

Core Competencies

- Cognitive modeling, computational neuroscience, philosophy of mind
- Generative AI, representation learning, interpretability
- Cross-disciplinary collaboration & thought leadership
- Teaching & mentoring in AI and cognitive science